

S/N: 10/662,500
Amendment

Atty Dkt. No. 67102-013

Remarks

The Examiner has rejected claims 14-20, 25-32 and 37-39 under 35 U.S.C. § 112, second paragraph. Applicant disagrees. The specification and claims make it clear that the "crossbar" claimed is simply that portion of the structure in the gantry from which the source and detector extend downwardly. It appears that the Examiner has used this broad interpretation of the term in his art rejections.

Claims 14-17, 20-22, 25-27 and 31-39

Claims 14-17, 20-22, 25-27 and 31-39 are rejected as obvious over Ning (US 6,480,565) in view of Graumann (US 6,496,558). The Examiner admits that Ning does not disclose that the source and detector are below the cross bar as claimed. The Examiner argues that it would be obvious to modify Ning so that the source and detector extend downwardly from the gantry, in light of Graumann, and use it for cranial imaging. However, this modification of the Ning CT scanner would be completely contrary to the teachings and intended purpose of Ning. "If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP 2143.01. The entire disclosure of Ning is directed toward the particular situation of imaging breasts with a CT scanner. The source and detector of Ning must extend *upward* from the gantry so that the breast can be imaged while being extended downward through a hole in the table (e.g. Figure 2F). An alternative embodiment (shown in Figure 2E) permits the breast to be imaged while the patient is vertical; however, neither of these embodiments shows a source and detector

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extending *downward* from a cross bar of a gantry. Nor could a breast be imaged in either of the positions shown in Ning with the claimed configuration. Therefore, at least claims 14 and 25 are patentable over Ning and Graumann.

Claims 18, 19, 23, 24 and 28-30

Claims 18, 19, 23, 24 and 28-30 are rejected as obvious over Ning in view of Graumann.

Claim 18

The Examiner admits that Ning does not disclose an onboard computer generating 3D images, but argues that it would be obvious to modify Ning to do so in order to “shorten processing time by eliminating data transfer.” There is no indication in Ning or elsewhere that performing the image reconstruction on the onboard computer would “shorten processing time” or “eliminate data transfer.” Since the CPUs 310 and 328 are already connected via slip ring 304, there is no reason to “eliminate data transfer,” since the frame images can be transferred rapidly to the CPU 328 during scanning via the slip ring 304.

Claim 19

In fact, since wireless transmission of data is normally slower than wired transmission of data, the Examiner’s proposed motivation (“shorten processing time by eliminating data transfer”) would fail in particular with respect to claims 19, 24 and 30. Although the Examiner argues that the wireless transmission of images is “notorious,” the Examiner does not cite a reference showing the wireless transmission of images in a

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CT system. Normally, in a CT scanner wireless transmission of images would be completely unnecessary. In Ning, for example, there is a slip ring 304 connection from the gantry to the host computer for transmitting data. The CT system of the present invention is intended to be easily transportable and easily installed. The wireless communication of the data from the gantry greatly facilitates installation and transport. With the slip ring connection available in the Ning CT system, there is no need for adding wireless communication to the Ning CT system. Therefore, claims 19, 24 and 30 are independently patentable.

Claims 1-13

The Examiner has rejected claims 1-13 as obvious over Ning in view of Graumann.

Claim 3

Claim 3 specifies that the motor is fixed to the gantry and that the motor imparts relative rotation between the mounting plate rotates and the gantry (from claim 2). As indicated above, the motor 212 of Ning is not mounted on the gantry as recited in claim 1.

Claim 4

Claim 4 depends from claim 3 and further recites that the motor imparts translational movement of the gantry. In Ning, translational movement of the gantry is provided by a separate motor 214, not the same motor 212 that rotates the gantry. Therefore, claim 4 is independently patentable.

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Claim 7

Claim 7 recites that the computer mounted to the gantry controls the x-ray source and sends signals to the motor to control rotation of the gantry. Ning does not disclose or suggest using the same on-board computer to control the x-ray source and an on-board motor.

If any fees or extensions of time are required, please charge to Deposit Account No. 50-1482.

Respectfully submitted,

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